AMENDMENT(S) TO THE SPECIFICATION

Please delete the paragraph at page 6, lines 19-22, which starts with "Japanese Patent Publication No. 78195/1995 describes a thermoplastic elastomer . . ."

Please replace the paragraph beginning at page 26 line 14 with the following amended paragraph:

each G is independently a monovalent or polyvalent group derived by substitution of alkyl, alkenyl, aryl, or aralkyl wherein G can contain from 1 to 18 carbon atoms, with the proviso that G is not such that the silane would contain an [[",$]] α,β-unsaturated carbonyl including a carbon-carbon double bond next to the thiocarbonyl group, and if G is univalent (i.e., if p = 0), G can be a hydrogen atom;

Please replace the paragraph beginning at page 19, line 18 and ending at page 20, line 14 with the following amended paragraph:

MQ resins are low molecular weight, hyperbranched polymers having the hydrophobic character of organosilicones and a rigidity similar to colloidal silica. With regard to the hardness of the rubber compound, these materials can offer a substantial improvement in hydrodynamic reinforcement. The presence of M groups, e.g., trimethyl siloxy surface, imparts a relatively neutral nature to their surface. MQ resins are used in a variety of applications, such as, for example, pressure sensitive adhesives, liquid injection molding applications, paper release

coatings, and personal care products. The "MQ" resins employed in practice of the present invention are macromolecular polymers comprising ~~$R_1R_2R_3SiO_{1/2}$~~ $R^aR^bR^cSiO_{1/2}$, and $SiO_{4/2}$, units (the M and Q units, respectively) wherein ~~R_1, R_2, and R_3~~ R^a, R^b and R^c are the same or different and are functional or non-functional organic groups, including, but not limited to, alkyl, alkenyl, aryl, and arylalkyl groups. As used herein, alkyl includes straight, branched and cyclic alkyl groups; alkenyl includes any straight, branched, or cyclic alkenyl group containing one or more carbon-carbon double bonds; aryl includes any aromatic hydrocarbon from which one hydrogen atom has been removed; and arylalkyl includes any of the aforementioned alkyl groups in which one or more hydrogen atoms have been substituted by the same number of like and/or different aryl (as defined herein) substituents and. Specific examples of alkyls include methyl, ethyl, propyl, isobutyl. In general, alkyls containing from 1 to about 10, preferably from 1 to about 3, carbon atoms are preferred in the practice of this invention. Specific examples of alkenyls include vinyl, propenyl, allyl, methallyl, ethylidenyl norbornane, ethylidene norbornyl, ethylidenyl norbornene, and ethylidene norbornenyl.

Please replace the paragraph beginning at page 25 line 21 with the following amended paragraph:

More preferably, the silanes employed in the practice of the present invention are blocked mercaptosilanes that can be represented by the Formulas (1-2):

~~$[[(ROC(=O))_p\text{-}(G)_j]_k\text{-}Y\text{-}S]_r\text{-}G\text{-}(SiX_3)_3$~~ $[[(ROC(=O))_p\text{-}(G)_j]_k\text{-}Y\text{-}S]_r\text{-}G\text{-}(SiX_3)_S$ (1)

$[(X_3Si)_q\text{-}G]_a\text{-}[Y\text{-}[S\text{-}G\text{-}SiX_3]_b]_c$ (2)

Please replace the Table for Example 17 at page 85 of the specification with the following table.

Example 17 Effect of MQ resin (MQ:NXT as 2:1) on NXT compounds

Ingredient (phr)	TESPD (3-f)	NXT (40)	NXT:MQ (A) 1	NXT:MQ (A) 2	NXT:MQ (A) 3	NXT:MQ (A) 4	NXT:MQ (A) 5
solution SBR (VSL 5525-1)	103.2	103.2	103.2	103.2	103.2	103.2	103.2
BR (Budene 1207)	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Silica (1165 MP)	80.0	80.0	80.0	80.0	80.0	80.0	80.0
TESPT							
TESPD	6.2						
NXT Silane Neat		8.2	0.0	2.2	4.2	6.2	7.2
MQ + NXT Mixture			24.6	18.0	12.0	6.0	3.0
Effective MQ loading			16.4	12.0	8.0	4.0	2.0
Effective NXT loading			8.2	8.2	8.2	8.2	8.2
Aromatic Oil	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Zinc Oxide	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Stearic acid	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Antiozonant	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Wax	1.5	1.5	1.5	1.5	1.5	1.5	1.5
N-330	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Sulfur	1.4	1.4	1.4	1.4	1.4	1.4	1.4
CBS	1.7	1.7	1.7	1.7	1.7	1.7	1.7
DPG	2.0	2.0	2.0	2.0	2.0	2.0	2.0
No. of Mixing steps	2	1	1	1	1	1	1
Mixing temperature	160°C	170°C	170°C	170°C	170°C	170°C	170°C

Compound properties	TESPD (3-f)	NXT (40)	NXT:MQ (A) 1	NXT:MQ (A) 2	NXT:MQ (A) 3	NXT:MQ (A) 4	NXT:MQ (A) 5
Processing							
Mooney Viscosity	60.0	54.0	61.0	62.0	56.0	53.0	52.0
Scorch time (min)	7.5	10.2	14.5	14.0	13.6	13.4	12.2
Cure time t90 (min)	20.0	13.1	14.3	13.5	14.0	14.1	14.1
M_L (dNm)	7.1	6.4	6.7	6.7	6.1	6.2	6.0
M_H (dNm)	25.9	24.9	29.0	28.8	27.8	26.6	25.4
Properties in the cured state							
- Non-linearity (0-10%)							
$G'_{initial}$ (MPa)	4.23	2.88	3.64	3.75	2.97	3.48	4.16
$\Delta G'$ (MPa)	2.46	1.42	1.99	2.05	1.41	1.88	2.42
G''_{max} (MPa)	0.55	0.32	0.41	0.43	0.31	0.36	0.48
$\tan\delta_{max}$	0.22	0.14	0.17	0.18	0.15	0.14	0.15
Wet-Skid Indicator, 10 Hz, 2% DSA							
$\tan\delta$ | 0°C	0.48	0.491	0.549	0.509	0.568	0.532	0.486
Dynamic Modulus, 10 Hz, 2% DSA							
G'(MPa) | 60°C	2.83	1.930	2.460	2.510	2.090	2.240	2.630
- Reinforcement							
Hardness (Shore A)	57	53	58	59	58	56	55
M 25% (MPa)	1.42	1.32	1.64	1.66	1.56	1.42	1.36
M 100% (MPa)	2.8	2.78	3.22	3.39	3.29	3.02	2.9
M 300% (MPa)	12.07	12.26	10.86	11.16	11.8	12	12.24
M 300%/M100%	4.3	4.4	3.4	3.3	3.6	4.0	4.2
Elongation at rupture (%)	481.0	437.0	442.0	510.0	472.0	471.0	484.0
Stress at rupture (MPa)	21.7	19.8	16.3	19.5	19.7	20.1	21.0

Please replace the Table for Example 18 at page 86 of the specification with the following table.

Example 18 Effect of MQ resin (MQ:NXT as 1:1) on NXT compounds

Ingredient (phr)	TESPD (3-f)	NXT (40)	NXT:MQ (B) 1	NXT:MQ (B) 2	NXT:MQ (B) 3	NXT:MQ (B) 4
solution SBR (VSL 5525-1)	103.2	103.2	103.2	103.2	103.2	103.2
BR (Budene 1207)	25.0	25.0	25.0	25.0	25.0	25.0
Silica (1165 MP)	80.0	80.0	80.0	80.0	80.0	80.0
TESPT						
TESPD	6.2					
NXT Silane Neat		8.2	0.0	2.2	4.2	6.2
MQ + NXT Mixture			16.4	12.0	8.0	4.0
Effective MQ loading			8.2	6.0	4.0	2.0
Effective NXT loading			8.2	8.2	8.2	8.2
Aromatic Oil	5.0	5.0	5.0	5.0	5.0	5.0
Zinc Oxide	2.5	2.5	2.5	2.5	2.5	2.5
Stearic acid	1.0	1.0	1.0	1.0	1.0	1.0
Antiozonant	2.0	2.0	2.0	2.0	2.0	2.0
Wax	1.5	1.5	1.5	1.5	1.5	1.5
N-330	3.0	3.0	3.0	3.0	3.0	3.0
Sulfur	1.4	1.4	1.4	1.4	1.4	1.4
CBS	1.7	1.7	1.7	1.7	1.7	1.7
DPG	2.0	2.0	2.0	2.0	2.0	2.0
No. of Mixing steps	2	1	1	1	1	1
Mixing temperature	160°C	170°C	170°C	170°C	170°C	170°C

Compound properties	TESPD (3-f)	NXT (40)	NXT:MQ (B) 1	NXT:MQ (B) 2	NXT:MQ (B) 3	NXT:MQ (B) 4
Processing						
Mooney Viscosity	60.0	54.0	56.0	55.0	53.0	51.0
Scorch time (min)	7.5	10.2	12.1	12.1	12.1	11.2
Cure time t90 (min)	20.0	13.1	13.2	13.1	13.5	13.5
M_L (dNm)	7.1	6.4	6.3	6.2	6.2	6.0
M_H (dNm)	25.9	24.9	27.8	27.1	27.1	25.5
Properties in the cured state						
- Non-linearity (0-10%)						
$G'_{initial}$ (MPa)	4.23	2.88	3.68	3.54	3.18	3.23
$\Delta G'$ (MPa)	2.46	1.42	2.00	1.90	1.66	1.62
G''_{max} (MPa)	0.55	0.32	0.40	0.39	0.33	0.34
$\tan\delta_{max}$	0.22	0.14	0.15	0.16	0.15	0.14
Wet-Skid Indicator, 10 Hz, 1% DSA						
$\tan\delta$ | 0°C	0.48	0.491	0.548	0.525	0.535	0.493
Dynamic Modulus, 10 Hz, 1% DSA						
G'(MPa) | 60°C	2.83	1.930	2.370	2.360	2.100	2.150
- Reinforcement						
Hardness (Shore A)	57	53	56	56	56	54
M 25% (MPa)	1.42	1.32	1.53	1.5	1.5	1.38
M 100% (MPa)	2.8	2.78	3.37	3.24	3.21	2.96
M 300% (MPa)	12.07	12.26	12.24	12.38	12.51	12.65
M 300%/M100%	4.3	4.4	3.6	3.8	3.9	4.3
Elongation at rupture (%)	481.0	437.0	500.0	460.0	444.0	472.0
Stress at rupture (MPa)	21.7	19.8	21.1	19.6	19.4	21.6

Please replace the Table for Example 19 at page 87 of the specification with the following table.

Example 19 Effect of MQ resin (MQ:NXT as 3:1) on NXT compounds

Ingredient (phr)	TESPD (3-f)	NXT (40)	NXT:MQ (C) 1	NXT:MQ (C) 2
solution SBR (VSL 5525-1)	103.2	103.2	103.2	103.2
BR (Budene 1207)	25.0	25.0	25.0	25.0
Silica (1165 MP)	80.0	80.0	80.0	80.0
TESPT				
TESPD	6.2			
NXT Silane Neat		8.2	3.3	5.5
MQ + NXT Mixture			19.9	10.7
Effective MQ loading			14.9	8.0
Effective NXT loading			8.2	8.2
Aromatic Oil	5.0	5.0	5.0	5.0
Zinc Oxide	2.5	2.5	2.5	2.5
Stearic acid	1.0	1.0	1.0	1.0
Antiozonant	2.0	2.0	2.0	2.0
Wax	1.5	1.5	1.5	1.5
N-330	3.0	3.0	3.0	3.0
Sulfur	1.4	1.4	1.4	1.4
CBS	1.7	1.7	1.7	1.7
DPG	2.0	2.0	2.0	2.0
No. of Mixing steps	2	1	1	1
Mixing temperature	160°C	170°C	170oC	170oC

Compound properties	TESPD (3-f)	NXT (40)	NXT:MQ (C) 1	NXT:MQ (C) 2
Processing				
Mooney Viscosity	60.0	54.0	56.0	56.0
Scorch time (min)	7.5	10.2	14.2	14.2
Cure time t90 (min)	20.0	13.1	14.5	15.1
M_L (dNm)	7.1	6.4	6.3	6.3
M_H (dNm)	25.9	24.9	28.1	27.0
Properties in the cured state				
- Non-linearity (0-10%)				
$G'_{initial}$ (MPa)	4.23	2.88	4.35	3.31
$\Delta G'$ (MPa)	2.46	1.42	2.62	1.67
G''_{max} (MPa)	0.55	0.32	0.49	0.35
$\tan\delta_{max}$	0.22	0.14	0.17	0.16
Wet-Skid Indicator, 10 Hz, 1% DSA				
$\tan\delta$ | 0°C	0.48	0.491	0.521	0.548
Dynamic Modulus, 10 Hz, 1% DSA				
G'(MPa) | 60°C	2.83	1.930	2.650	2.310
- Reinforcement				
Hardness (Shore A)	57	53	58	57
M 25% (MPa)	1.42	1.32	1.59	1.47
M 100% (MPa)	2.8	2.78	3.19	3.01
M 300% (MPa)	12.07	12.26	10.75	11.66
M 300%/M100%	4.3	4.4	3.4	3.9
Elongation at rupture (%)	481.0	437.0	484.0	494.0
Stress at rupture (MPa)	21.7	19.8	17.7	20.4

Please replace the Table for Example 20 at page 88 of the specification with the following table.

Example 20 Comparison of performance of MQ resin, silica and fumed silica on NXT compounds

Ingredient (phr)	TESPD (3-f)	NXT (High Silica)	NXT (Fumed Silica)	NXT:MQ (A) 4	NXT:MQ (B) 1	NXT:MQ (C) 2
solution SBR (VSL 5525-1)	103.2	103.2	103.2	103.2	103.2	103.2
BR (Budene 1207)	25.0	25.0	25.0	25.0	25.0	25.0
Silica (1165 MP)	80.0	97.0	80.0	80.0	80.0	80.0
Fumed Silica (TS-530)			10.0			
TESPD	6.2					
NXT Silane Neat		8.2	8.2	6.2	0.0	5.5
MQ + NXT Mixture				6.0	16.4	10.7
Effective MQ loading				4.0	8.2	8.0
Effective NXT loading				8.2	8.2	8.2
Aromatic Oil	5.0	5.0	5.0	5.0	5.0	5.0
Zinc Oxide	2.5	2.5	2.5	2.5	2.5	2.5
Stearic acid	1.0	1.0	1.0	1.0	1.0	1.0
Antiozonant	2.0	2.0	2.0	2.0	2.0	2.0
Wax	1.5	1.5	1.5	1.5	1.5	1.5
N-330	3.0	3.0	3.0	3.0	3.0	3.0
Sulfur	1.4	1.4	1.4	1.4	1.4	1.4
CBS	1.7	1.7	1.7	1.7	1.7	1.7
DPG	2.0	2.0	2.0	2.0	2.0	2.0
No. of Mixing steps	2	1	1	1	1	1
Mixing temperature	160°C	170°C	170°C	170°C	170°C	170°C

Compound properties	TESPD (3-f)	NXT (High Silica)	NXT (Fumed Silica)	NXT:MQ (A) 4	NXT:MQ (B) 1	NXT:MQ (C) 2
Processing						
Mooney Viscosity	60.0	60.0	59.0	53.0	56.0	56.0
Scorch time (min)	7.5	11.2	12.3	13.4	12.1	14.2
Cure time t90 (min)	20.0	20.3	16.1	14.1	13.2	15.1
M_L (dNm)	7.1	7.0	6.5	6.2	6.3	6.3
M_H (dNm)	25.9	23.8	26.1	26.6	27.8	27.0
Properties in the cured state						
- Non-linearity (0-10%)						
$G'_{initial}$ (MPa)	4.23	2.67	2.95	3.48	3.68	3.31
$\Delta G'$ (MPa)	2.46	1.37	1.46	1.88	2.00	1.67
G''_{max} (MPa)	0.55	0.34	0.33	0.36	0.40	0.35
$\tan\delta_{max}$	0.22	0.20	0.15	0.14	0.15	0.16
Wet-Skid Indicator, 10 Hz, 2% DSA						
$\tan\delta$ | 0°C	0.48	0.527	0.543	0.532	0.548	0.548
Dynamic Modulus, 10 Hz, 2% DSA						
G'(MPa) | 60°C	2.83	1.800	2.130	2.240	2.370	2.310
- Reinforcement						
Hardness (Shore A)	57	56	55	56	56	57
M 25% (MPa)	1.42	1.36	1.51	1.42	1.53	1.47
M 100% (MPa)	2.8	2.58	3.22	3.02	3.37	3.01
M 300% (MPa)	12.07	10.87	13.7	12	12.24	11.66
M 300%/M100%	4.3	4.2	4.3	4.0	3.6	3.9
Elongation at rupture (%)	481.0	457.0	423.0	471.0	500.0	494.0
Stress at rupture (MPa)	21.7	18.7	20.1	20.1	21.1	20.4